

ON-CHIP MULTIPLE TAP TRANSFORMER AND INDUCTOR

ABSTRACT OF THE DISCLOSURE

5 An on-chip multiple tap transformer balun includes a 1st winding and a 2nd winding having two portions. The 1st winding is on a 1st layer of an integrated circuit and is operably coupled for a single ended signal. The 1st and 2nd portions of the 2nd winding are on a 2nd layer of the integrated circuit. The 1st portion of the 2nd winding includes a 1st node, a 2nd node, and a tap. The 1st node is operably coupled to receive a 1st leg of a
10 1st differential signal and the 2nd node is coupled to a reference potential. The tap of the 1st portion is operably coupled for a 1st leg of a 2nd differential signal. The 2nd portion of the 2nd winding includes a 1st node, 2nd node, and tap. The 1st node is operably coupled to receive a 2nd leg of the 1st differential signal and the 2nd node is operably coupled to the reference potential. The tap of the 2nd portion is coupled for a 2nd leg of the 2nd
15 differential signal. The 1st and 2nd portions of the 2nd winding are symmetrical with respect to the 1st and 2nd nodes and with respect to the tap nodes.